

**Notice of Allowability**

Application No.

10/727,499

Examiner

Dana Ross

Applicant(s)

BALDINI ET AL.

Art Unit

3722

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Preliminary Amendment filed December 5, 2003.
2. ☒ The allowed claim(s) is/are 14-26.
3. ☒ The drawings filed on December 5, 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. 09/622,845.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 12/5/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*Daniel W. Howell*  
**Daniel W. Howell**  
 Primary Examiner  
 Art Unit 3722

**ALLOWANCE**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Charles Gorenstein on June 30, 2004.

The application has been amended as follows:

**Abstract:**

A rotary indexing machine (10) has a fixed machine frame, which is designed for holding a multiplicity of machining units (66) and comprises at least one support (70) Furthermore, the rotary indexing machine (10) has rotary table (40) rotatable relative to the machine frame about a vertical indexing axis (12). To create free space for the machining of a workpiece to be arranged on the rotary table (40), the support (70) is designed for the lateral attachment of at least one of the machining units (66). [

] The machine frame is characterized by high rigidity and stability, a large free space for 15 machining workpieces being created at the same time in the region of the rotary table (40), and good accessibility the satellites (50), the indexing devices and the rotary table (40) being ensured for the adjustment setting-up of the machine. Furthermore, 20 the rotary indexing machine (10) according to the invention has an extremely fast and highly dynamic drive for the

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rotary table (40) and permits timesaving and nonetheless accurate indexing of the satellites. (Fig. 1)

In the claims:

Claim 14, line 10, has been changed to read “table, is moved along with the [latter] rotary table and permits rotation of the”

***Allowable Subject Matter***

2. Claims 14-26 are allowed.

3. The following is an examiner's statement of reasons for allowance: The prior art of record neither anticipates nor renders obvious a rotary indexing machine with a fixed based unit, rotary table as claimed, satellite (work holding device), satellite device drive, satellite shaft, and indexing device as claimed, specifically wherein the indexing device is arranged on the base unit, the indexing device having a column or annular disk, which is linearly displaceable parallel to the indexing axis and on whose end face facing the rotary table a Hirth serration system corresponding to the Hirth serration system on the satellite shaft is arranged, arrangement being such that, to index the satellite, the Hirth serration system of the indexing direction the rotary table device is displaced linearly in the order to mesh with the Hirth serration system of the of the satellite, and, system of the indexing away from the rotary satellite and thereby effects the indexing to release the indexing, the Hirth serration device is displaced linearly in the direction table.

The use of rotary tables, satellites (work holding devices), satellite drive devices and indexing devices are well known in the art.

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U.S. Pat. No. 2,965,208 (Forster et al., hereafter referred to as '208) teaches a fixed based indexing machine (fig. 2), with a rotary table 3 being rotated by means of the bevel gear 6 that is keyed onto the lower end of the shaft 2 (col. 2, lines 37-44); the rotary table with a flange 17, spindle 12 extending through the rotary table and spindle housing 14, which is used for holding and indexing any conventional workpiece chuck (col. 2, lines 56-63).

'208 teaches the work holding device with a belt 24 and pulley 23 connected to the rotary table (fig. 4) and to drive the spindle 12 there is a housing 20 and shaft 21 with an iron ring 25, stationary coil 27, iron ring 25 which is magnetized to drawing downwardly the iron ring 28 which is non-rotatable mounted on the lower end of each spindle 12 by means of spring loaded pins 29 secured to the iron rings 28 such that when the coil 27 is energized, the spindles 12 will w driven (col. 3, lines 11-34).

'208 does not teach the use of a Hirth serration system.

Therefore '208 does not anticipate the claimed invention of claim 14.

The use of Hirth serrations for indexing is well known in the art.

U.S. Pat. No. 5,735,180 (McMurtry, hereafter referred to as '180) teaches the use of an indexing mechanism using a Hirth serration mechanism for use in rotary tables (col. 1, lines 7-10 and lines 27-30).

'180 does not teach the satellite rotation with the use of the hirth serration, or the indexing device arranged on the base unit, the indexing device having a column or annular disk, which is linearly displaceable parallel to the indexing axis and on whose end face facing the rotary table a Hirth serration system corresponding to the Hirth serration system on the satellite shaft is arranged, arrangement being such that, to index the satellite, the Hirth serration system of

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the indexing direction the rotary table device is displaced linearly in the order to mesh with the Hirth serration system of the of the satellite, and, system of the indexing away from the rotary satellite and thereby effects the indexing to release the indexing, the Hirth serration device is displaced linearly in the direction table..

Therefore '180 does not anticipate the claimed invention of claim 1.

There is no motivation found to combine the magnetized indexing teachings of '208 with the Hirth serration indexing as taught by '180. Therefore '208 and '180 in combination do not render obvious the claimed invention.

Furthermore, there is no prior art found that would anticipate, or render obvious, either alone or in combination, the claimed invention of claim 1,

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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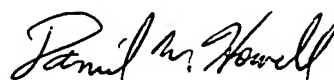
***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 703-305-7764. The examiner can normally be reached on 7:00 to 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on 703-308-2159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dmr



**Daniel W. Howell  
Primary Examiner  
Art Unit 3722**